The Dissonance of The Circles (and The Responsible Use of Music)

by

Mark O'Trumea

The Rhetoric

These writings represent the culmination of knowledge and experience acquired through years of playing and studying music. While there are mathematical explanations for ideas presented here, they will not be put forth in this text. While I have found no shortage of books that explain the math, and my sources will be listed at the end, this work I have made is my own rhetoric. The purpose of this writing is to give the reader an understanding of the end result of studying the dry, and often hard to read, reasonings behind all that will be presented here and to entice the reader to delve into the studies that I've done.

The Dissonance of The Circles

In western music we have the circle of fifths. Our music loops back into itself. This is not how music naturally works. A procession of purely vibrating, consonant fifths, does not circle back into itself. It spirals outward, infinitely. Western music has taken the interval of the fifth and narrowed it in such a way that going through twelve fifths loops back into the note you started on. Yes, it has taken pure fifths and strategically detuned them. This gives us the 12 tone equal tempered system that is so popular today.

Twelve tone equal temperament makes it much easier to have chordal movement and harmony on just one instrument, such as the piano or guitar. But none of the music played on such instruments is actually in tune. In this system, consonance has been traded for convenience.

Ancient musics, Indian Raga and Turkish Makam for example, use tones that correspond to the harmonic series. These musics are based on purely vibrating intervals, rather than tempered intervals. Many westerners may think that such music is out of tune to their ears, but this only from being born in a culture that does not use as much tonal variety as Indian on Turkish music does.

To understand the harmonic series, take an instrument string and find the halfway point. Then gently touch your finger to the exact middle of the string, but do not push it down to the fingerboard, and pluck the string. This will give you the octave harmonic. If you divide the string in thirds and follow the same steps you will find the harmonic that forms an interval of a fifth in relation to the first harmonic you found. You can follow this same procedure infinitely and discover other intervals by using other sized divisions. Though, after a point,

the notes will ring out much higher than human ears can hear. It is good to note that most of the harmonics you find will not sound in sync with notes you can find on an equal tempered instrument. This should indicate that equal temperament does not conform to harmonic purity. The harmonic series is set in stone, so to speak. It is part of the fabric of music and the physics of sound. The harmonic series is immutable.

Instruments that are tuned to pure intervals can create what is called sympathetic resonance. Take the sitar for example: it has many strings which are not even touched by the performer. They are sympathetic strings, designed to vibrate when a note is plucked. This is why, when only playing one note, the sitar has a very full sound. The sympathetic strings create a backdrop, if you will, for the melody to be supported by.

The vibrationally pure music of the harmonic series corresponds to the natural world: to reality. The harmonic series governs more that just music: it governs sound in general. Part of how we identify sounds is by which parts of the harmonic series are more pronounced in those sounds. Quite often, either the even harmonics (the 2nd harmonic, the 4th and so on) are easier to hear in certain sounds or the same is true of the odd. There are also sounds in which both can be well heard. The harmonic series is naturally occurring. This is why ancient musics were based on it. This is also why some cultures had different musics for certain times of the day, month, or year. Long before we had electronic tuners and long before we were surrounded by electrical and industrial noise, people still used a tuning reference. They tuned to the sounds they heard around them in the world. This isn't to say that they would tune, for example, to the pitch of the wind or rain (which are more noise than music). But rather that their music would be intervallically similar to the

relationship between such sounds. People now may think of this as absurd. But tuning to electrical devices can seem just as absurd to someone who has a developed enough ear to tune to the sounds they hear in the natural world.

Western equal tempered music, is tuned to a sort of reality of its own: a contrived, manufactured reality. More on that later.

Intention

There is an incredibly important aspect to music that formal teaching rarely touches upon: intention.

How one intends their music to come across greatly affects their overall performance.

A friend once told me of a musician they saw perform, who was not, in their opinion, all that great of a singer. But, my friend still loved the performance because the musician "had a huge smile on his face." This musician seemed to "really put them self into music." Upon hearing a recording of this musician, I could almost hear that they were smiling and having a good time. Indeed, their voice was often off key. But the *intent* behind the music was quite palpable. And so, I enjoyed the music as well.

Any type of intention can be attached to a music. An angry one, a sad one, the intent to heal or to harm. Two musicians may play the same song, with approximate technical accuracy, but one musician may relax or soothe, while the other musician may excite or seduce. It all depends on the intent that has been attached to the music.

Many musicians, who use equal temperament, dedicate their music to healing the world and spreading love. But, since their music is not in tune with reality, their message does not penetrate as well. Their failure is not one of intent but of tonality.

When purely vibrating music has a healing intention attached to it, the result is greater and more effective.

Selfish or Selfless?

There is now a great deal of importance being attached to attaining god-like status as a musician. Televised contests are no rare thing and have given young and impressionable musicians the idea that they must gain the approval of anonymous millions to "succeed" as a musician. This has led to many misunderstandings of musicianship and also damages a musicians concept of self.

There is now no shortage of musicians who love to lord their knowledge over others and have a need to be worshiped. There is also no shortage of inflated egos and needles competition among those who do not approve of 'pop gods' and consider art to be more important. The idea of popular music being "sellout" music pervades many music circles. There seems to be an endless debate over which musicians are truly "artists".

It is worth noting that many performers now find themselves in positions where they are forced to play music they hate. They have been reduced to servitors just so they can make a living as musician.

It is a rather sad (and uninformed) idea that the ultimate achievement of musicianship is virtuosity or artistic integrity. While gaining skill and learning the language of knowledge is important, it is only a door into understanding greater things. Distinguishing oneself as an 'artist' can feed into vanity as well.

The idea of music as simply entertainment does not accurately represent the full potential and power of music either.

This may surprise some but, the further back in time one goes, the more one sees that music was used for spiritual, religious, or healing purposes. There even existed cultures that used music primarily for healing.

Here, now, in our civilized cultures we may scoff at the idea of music being more than just entertainment. Many modern musicians think only of what music can do for them, not others. Civilization cares most for what benefits industry and so, using music for the greater purposes of spirit or health is mostly left by the wayside.

When ego is set aside, new paths of understanding and new types of music can flow from a musician. There are endless things that can be done when being artist, virtuoso, or entertainer are only secondary concerns. These musics can be humble, humbling, or grandiose. But any grandiosity is just a byproduct; grandiosity for its own sake is shallow and vain.

Setting aside selfish endeavors is the past and (hopefully) the future of music.

More Dissonance, More circles and Emotion

Earlier it was mentioned that equal temperament has its own reality. It is a reality of our war with the natural world. A reality where people have turned their backs to infinity. A reality were logic goes in circles. A reality where arguments about the workings of the world are polarized and go in circles. Those on opposing sides of arguments can easily see the circular nature of their opponents arguments, but not of their own. An artificial realty in which convenience is more important than quality. As their music is homogenized, so too are they and their arguments.

It is unfortunate that many people can not see how a cultures music relates directly to that cultures impact on, and how it views the world. Such cosmology and ontology of music is often considered 'mumbo jumbo' by westerners. Ironically, this is because western music does not sync up with cosmology or ontology.

Just as easterners have remarked, the music of the west sounds war-like. And the equal tempered music has spread across the globe like a conqueror. It has seduced peoples minds with its ease of use and idea that one can play in "all 12 keys" - a ridiculous notion since there are infinite notes and, therefore, infinite keys. People with such uneducated outlooks may very well concede that there are infinite notes but say "most of them are out of tune". This is nonsensical as well though, because there is no such thing as *most* of infinity.

Western music represents the western mindset: believing that the world must bend to their command. Equal temperament tries to defy the physics of sound, but only creates a poor parody of it. Equal

temperament is not in sync with reality; it transgresses against it. Just as civilization transgresses against nature.

So many instruments now exist, thanks to equal temperament, that do not take as much skill to play. A keyboardists needs not worry about tuning their instrument by ear and electronic devices are used to tune many others. Some westerners may believe that training their ears to recognize intervals gives them an acute ear. But this is only the beginning of having an acute ear. Most musicians, even some from long standing eastern traditions, are only vaguely aware of the emotional content of the intervals they play. The brain must be in tune with the heart, or the soul, to know all that music is capable of.

Some ancient musics identified intervals and modes not by numbers but by the emotions they evoked. Now that we have mathematics ingrained in our culture, we must bring it together with ancient understandings, not dismiss them as 'primitive'.

This takes us to some shaky ground because not everyone has the same emotional reactions to the same kinds of music. Intervals are the building blocks of a piece of music and associations can be attached to them, which blurs our understanding of their emotional content. If someone plays a low C on a cello and them blends it into a C#, this gives many westerners something they have heard before. It is the theme from the movie "Jaws". This interval, the minor 2nd, existed long before that movie ever did, yet there is an association with the movie that many people have. There are many associations with many types of music which can stand in the way of understanding how intervals work on an emotional level. Stereotypes, of course, like hearing a Reggae band, immediately thinking of marijuana, and endless other examples.

It is hard to say that there are absolutes when referring to the emotional content of intervals. All cultures have their own emotional associations with their music. Turkish Sufi music for example, may sound sad to some but joyous to a Muslim person. The reason being that Sufi music is religious and the longing sound represents a longing to be close God, which they would consider a cause for celebration.

The intervals that could be considered universal would be the octave (or unison), the perfect fourth and the perfect fifth, that last two being inversions of each other. Most music tends to use these intervals to the same degree. Whereas there is slight (or not so slight) variations of all other intervals, depending on the type of music.

Since emotional associations of intervals are learned: it is up to the individual musician to be aware of how the intervals affect them and their target audience. To understand how the smaller parts of your music affect the whole, is to be conscious of *exactly* what message you're sending.

What to do?

To use music responsibly we must do the following things:

- 1. Attach a caring, loving, and selfless intention to our music
- 2. Use tuning systems that are in sync with the harmonic series. To get an idea of how this music sounds a good place to start is by listening to the classical music of India, which is based around what is called just intonation. There are many forms of just intonation and many examples of it on the internet. Appropriate instruments must be used. The human voice is capable of working within all systems. Also, non tempered instruments such as fretless or specially fretted stringed instrument, some wind instruments, and many others. There now exists the technology to use alternate tuning systems on electronic keyboards.
- 3. Learn to identify and understand the emotional significance of intervals. As said, there are technically infinite notes and therefore, infinite intervals. A good way to learn is by imitating, with your voice, the sounds you hear around you in all places. This is, after all, how we learn to talk. Find as many intervals as you can on your instrument. Then, spend time listening to the intervals and see what emotions they evoke in you and others.
- 4. Remember that music is in its highest form when used for purposes larger than entertainment, artistry, or virtuosity. The ability to heal is sorely needed in the world and there is no greater cause than bringing harmony.

There we have it. I hope these writings have inspired you to bring a bright future to the world of music.

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Sources

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